8. APPLICABLE LAWS AND REGULATIONS

This section identifies and summarizes the major laws, regulations, and requirements that may apply to the different alternatives analyzed in this TRU Waste Treatment Project EIS. Section 8.1 first lists those laws, regulations, and requirements and describes how those requirements may apply to this project specifically. In addition to laws, regulations, and requirements discussed below, there may be additional project-specific contractual requirements in any contract entered into between DOE and Foster Wheeler if the preferred alternative is selected. The rules and regulations that govern the transportation of all goods and commodities on our nation's highways can be found in 49 *CFR* §100–199 and the Western Governor's Association Waste Isolation Pilot Plant Program Implementation Guide.

8.1 FEDERAL AND STATE ENVIRONMENTAL STATUTES AND REGULATIONS

***National Environmental Policy Act of 1969* (NEPA), as amended (42 U.S.C. §4321 et seq.), the Council on Environmental Quality Implementing Regulations (40 *CFR* §1500 et seq.), and DOE Implementing Regulations (10 *CFR* §1021 et seq.).** This EIS is being prepared to comply with NEPA—the Federal law that requires agencies of the Federal government to study the possible environmental impacts of major Federal action significantly affecting the quality of the human environment. Although the proposed project is envisioned as one that would be executed primarily by a private entity, this EIS assesses potential impacts before DOE decides whether to proceed with the project. The unique process described in §1021.216 allows DOE to compare potential environmental impacts between approaches suggested by competing offerors when in the process of a private sector procurement. DOE compares these impacts in the Environmental Critique. Those environmental considerations that are detailed in the Critique are made available to the Source Evaluation Board considering the procurement and become a part of the technical criteria against which the competing offerors are evaluated during the procurement process.

As a result of this competition and the comparison of potential environmental impacts associated with the competing proposals, the Source Evaluation Board chose Foster Wheeler as the winning contractor for Phase I of the project.

This EIS considers whether Foster Wheeler should be allowed to continue with the remainder of the project as it was proposed to DOE, or whether one of the various alternative courses of action is the better decision for DOE. As required by NEPA, the potential environmental impacts of each alternative are analyzed and are being considered in this EIS.

***Atomic Energy Act of 1954* (AEA), as amended (42 U.S.C. §2011 et seq.).** The AEA is the statute that requires DOE to establish standards to protect health and safety with respect to atomic materials. Ordinarily, this is accomplished through DOE orders, standards, and procedures to ensure the safe operation of its facilities. In the project under consideration in this EIS, because the proposed TRU Waste Treatment Facility would not be considered a DOE facility, but instead would be a privately owned and operated facility, DOE orders, standards, and procedures are not necessarily applicable. Nonetheless, DOE remains ultimately responsible for its atomic or nuclear materials. Thus, the environmental, safety, and health standards that would apply to this project are those established in the contract between DOE and Foster Wheeler, particularly those set out in the Environmental Safety and Health Program Operating Plan that would result from negotiations between Foster Wheeler and DOE.

***Clean Air Act* (CAA), as amended (42 U.S.C. §7401 et seq.).** This Federal statute and its regulations are important to this proposed project and its alternatives. In addition, the Tennessee statute and regulations promulgated under the CAA authority are also important. The heart of the CAA is the National Ambient Air Quality Standards (NAAQS). These are national standards set by the EPA for certain pervasive pollutants; the standards are set at a level designed to protect human health with a conservative margin of safety. States have the primary responsibility of assuring that the air quality within state borders is maintained at a level that meets the NAAQS. This is achieved by states through the establishment of source-specific state requirements that are described in State Implementation Plans. Also under the Federal law is the requirement that new sources of air pollutants meet established New Source Performance Standards (NSPS) set by EPA. These NSPS can be described as design standards, equipment standards, work practices, or operational standards, in addition to the other approach of numerical emissions limitations.

Because of the significance of this body of law, these different concepts will be examined in the discussion in Section 8.2 according to each alternative being considered.

***Resource Conservation and Recovery Act* (RCRA), as amended (42 U.S.C. §6901 et seq.).** This body of law regulates the treatment, storage, and disposal of hazardous wastes. Regulation under these laws is by permit, meaning that the State of Tennessee and EPA study the alternative chosen by DOE and then establish a permit specific to the project that describes how the project is to be carried out. Whether DOE chooses the No Action Alternative, or any other alternative under consideration in this EIS, some type of RCRA permit will be required. As with the CAA discussion above, the discussion in Section 8.3 considers each alternative and the likely RCRA permitting scheme that would exist for each alternative.

***Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA), as amended (42 U.S.C. §9601 et seq.).** This body of law does not play a predominant role in the proposed project. However, after the removal of the waste from the SWSA 5 North trenches, residual contamination in the surrounding media (soils and groundwater) may still need to be addressed under a subsequent CERCLA action. In addition, from a cumulative impacts perspective, the proposed action would contribute beneficially to the CERCLA cleanup of Melton Valley.

***Emergency Planning and Community Right-to-Know Act of 1986* (EPCRA), as amended (42 U.S.C. §11001 et seq.).** This statute requires that inventories of specific chemicals used or stored in either the storage facility or the proposed TRU Waste Treatment Facility would be communicated to the State of Tennessee for purposes of emergency response planning. If DOE chooses the No Action Alternative, the responsibility for this reporting activity will lie with the management and operating (M&O) contractor for the ORNL. Alternatively, if DOE chooses one of the "action" alternatives, Foster Wheeler, or another contractor, will have the responsibility of reporting to the State and preparing emergency response plans.

***Occupational Safety and Health Act of 1970*, as amended (29 U.S.C. §651 et seq.).** If DOE chooses any of the "action" alternatives, compliance with the Occupational Safety and Health Act will be the responsibility of Foster Wheeler, or another contractor, according to Occupational Safety and Health Act standards. If DOE chooses the No Action Alternative, protection of the workforce will remain with the M&O contractor and DOE. The occupational safety requirements of the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) are not directly applicable to DOE's government-owned, contractor-operated facilities by virtue of Section 4(b)(i) of the Occupational Safety and Health Act of 1970. However, DOE requires a written worker protection program that integrates all requirements contained in DOE 440.1:29 *CFR* Part 1960, *Basic Program Elements for Federal Employee*

Occupational Safety and Health Programs and Related Matters, and other related site-specific worker protection activities.

National Historic Preservation Act of 1966, as amended. Section 106 of the National Historic Preservation Act (NHPA) requires that Federal agencies take into account the effects of their undertakings on properties included in or eligible for inclusion in the *National Register of Historic Places.* To comply with Section 106 of the NHPA, and its implementing regulations at 36 *CFR* 800, DOE-ORO ratified a programmatic agreement among DOE-ORO, the Tennessee State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation concerning management of historical and cultural resources and properties on the ORR. As part of the programmatic agreement, DOE-ORO has developed a cultural resources management plan for the ORR and conducted surveys to identify significant historical properties on the ORR. Compliance with NHPA at the DOE Oak Ridge facilities is achieved and maintained in conjunction with NEPA compliance. The scope of proposed actions is reviewed in accordance with the programmatic agreement and, if warranted, consultation is initiated with the SHPO and the Advisory Council on Historic Preservation, and the appropriate level of documentation is prepared and submitted. Consultation was performed for this project. While no cultural resources are known from the proposed site, should any resources be discovered, the reporting and coordination requirements under this Act would continue to be implemented.

Clean Water Act of 1970, as amended. The various alternatives were examined to ensure that no dredge or fill material would be produced and surface water bodies in the area would not receive any dredge or fill materials. Thus, Section 404(r) of the Act was determined not to apply. The Melton Valley Storage Tanks are classified as wastewater treatment units under the Tennessee Department of Environment and Conservation-administered water program.

8.2 OTHER PERTINENT REQUIREMENTS

Federal Facilities Agreement. DOE, EPA, and the Tennessee Department of Environment and Conservation (TDEC) entered into the ORR Federal Facilities Agreement (FFA) on January 1, 1992. The FFA coordinates remediation activities undertaken on the Reservation pursuant to the requirements of CERCLA, RCRA, and NEPA. The FFA established a mechanism to ensure that environmental impacts associated with ORR are thoroughly investigated and remediated, as necessary to protect the public health and welfare and the environment. It is a binding agreement that governs the total processes by which the corrective actions and remedial actions are conducted, from the investigation of individual units through their remediation, and describes procedures for the parties to set annual work priorities and schedules for each process. As such, the FFA is designed to integrate the CERCLA response action process with the corrective measures provisions of Sections 3002(u) and (v) of RCRA, as well as to ensure that remedial actions are in compliance with appropriate, relevant, and applicable requirements (ARARs). The FFA parties, EPA and TDEC, will review this EIS in light of remediation actions in Melton Valley.

Tennessee Department of Environment and Conservation: Commissioner's Order (September 1995). DOE is required to implement the Site Treatment Plan (under the Federal Facility Compliance Act) that mandates specific requirements for the treatment and shipment of ORNL's TRU waste. The primary milestone in the Commissioner's Order is that DOE begin treating legacy TRU sludge in order to make the first shipment to the Waste Isolation Pilot Plant (a DOE transuranic waste disposal facility) in New Mexico by January 2003.

Executive Order 12898: Environmental Justice. This Executive Order is applicable to DOE for any of the alternatives being considered; therefore, an analysis of the possible impacts to minority and low-income populations has been done in the EIS (Section 4.13).

Executive Order 11988: Floodplain Management. This Executive Order is applicable to DOE for any alternatives being considered; therefore, an analysis of possible impacts to floodplain function has been performed in this EIS (Section 4.5).

Executive Order 11990: Protection of Wetlands. This Executive Order is applicable to DOE for any alternatives being considered; therefore, an analysis of possible impacts to wetlands has been performed in this EIS (Section 4.5).

Executive Order 12088: Federal Compliance with Pollution Control Standards. This Executive Order is applicable to DOE for any alternatives being considered; therefore, pollution control standards were integrated into the various treatment alternatives considered in this EIS.

***Executive Order 13007*: *Indian Sacred Sites*.** This Executive Order is applicable to DOE for any of the alternatives being considered; therefore, and analysis of the possible impacts to land use, cultural resources, and environmental justice, has been completed in the EIS (Sections 4.1, 4.3, and 4.14).

8.3 REGULATORY COMPARISONS BETWEEN ALTERNATIVES

If the No Action Alternative were selected, DOE is potentially subject to fines and penalties due to noncompliance with the Tennessee Commissioner's Order. Any modification to the timeframes specified within the Order for treatment and disposal of the radioactive mixed waste have to be negotiated with the State of Tennessee. RCRA permits would likely not be necessary, provided that the tanks were maintained as wastewater treatment units which are specifically excluded from RCRA permitting requirements pursuant to 40 *CFR* (c)(2)(v).

Selection of the preferred alternative would require an RCRA permit to treat and store the waste. The treatment permit would cover the low-temperature drying operation with additional submissions for storage required. In addition, a permit for emissions might be required depending upon potential emissions of radionuclides or other contaminants from the operation. In any event a permit to construct will be required under RCRA prior to construction. In addition, the unit will be classified as a Subpart X unit under RCRA. Wastes to be treated consist of characteristic hazardous wastes regulated under RCRA. Due to this fact the land disposal restrictions require that the applicable waste be treated not only for the hazardous characteristic constituents, but also for any underlying constituents found in the universal treatment standards.

If DOE selects the Vitrification Alternative, an RCRA permit will be required for operation of the vitrification unit and storage of wastes similar to those required in the discussion relating to the proposed action above. Pre-construction permits will also be required prior to construction of the unit(s). The land disposal restrictions applicable to the wastes would have to be addressed as outlined above.

The Cementation Alternative would also require an RCRA permit for treatment and storage of hazardous wastes under RCRA. The land disposal restrictions would be addressed though the TDEC Commissioner's Order (dated September 1995). An evaluation of emissions would be required to determine if modification of the ORR NESHAPs permit would be required.

Should the Treatment and Storage Onsite Alternative be undertaken, an RCRA permit would still be applicable for waste treatment unless the treatment occurred as a part of the wastewater treatment system regulated under the Clean Water Act. In any event modification of the Commissioner's Order would be required, as the Order requires wastes to be treated and disposed. In addition, new storage units could be required in order to accommodate increasing volumes of stored wastes. Since it is assumed that treatment will render the wastes non-hazardous and meet the requirements of the applicable land disposal restriction standards, the wastes, after treatment, would not be required to be stored in a permitted hazardous waste storage unit.

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